

# Algebra/Topology Seminar

CHASE VOGELI  
Cornell University

## DERIVED INDUCTION THEORY FOR MODULAR REPRESENTATIONS

Thursday, April 17, 2025  
3:00 p.m. in SS-256

ABSTRACT. The algebraic  $K$ -theory of group rings is a fundamental invariant that houses a number of constructions ranging from geometric topology to number theory. In this talk, I'll survey the state of knowledge of the  $K$ -theory of group rings and discuss techniques for furthering calculations for group rings over finite fields. In particular, I'll demonstrate how recent advances in equivariant stable homotopy theory allow new calculations to be deduced from induction theorems in modular representation theory.